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DATE: Wednesday, July 07, 2004

Hide?	Set Name	Query	Hit Count
		<i>DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L6	L5 or l2	72
<input type="checkbox"/>	L5	(Interleukin-22 or il-22) and (crystal\$10 or x-ray or nmr or structure)	69
		<i>DB=USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L4	L3 or l1	33
<input type="checkbox"/>	L3	(Interleukin-22 or il-22) and (crystal\$10 or x-ray or nmr or structure)	28
		<i>DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L2	(Interleukin-22 or il-22) and (muta\$7 or variant)	70
		<i>DB=USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L1	(Interleukin-22 or il-22) and (muta\$7 or variant)	27

END OF SEARCH HISTORY

Hit List

[Clear](#) [Generate Collection](#) [Print](#) [Fwd Refs](#) [Bkwd Refs](#)
[Generate OACS](#)

Search Results - Record(s) 1 through 20 of 33 returned.

☐ 1. Document ID: US 6689793 B2

Using default format because multiple data bases are involved.

L4: Entry 1 of 33

File: USPT

Feb 10, 2004

US-PAT-NO: 6689793

DOCUMENT-IDENTIFIER: US 6689793 B2

TITLE: Piperidinylethyl-, phenoxyethyl-, and .beta.-fluorophenethyl-substituted thiourea compounds with potent anti-HIV activity

DATE-ISSUED: February 10, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckun; Fatih M.	White Bear Lake	MN		
Venkatachalam; Taracad K.	Maplewood	MN		

US-CL-CURRENT: 514/318; 546/194

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	Drawings	Drawn De
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☐ 2. Document ID: US 6635482 B1

L4: Entry 2 of 33

File: USPT

Oct 21, 2003

US-PAT-NO: 6635482

DOCUMENT-IDENTIFIER: US 6635482 B1

TITLE: Monoclonal antibodies to membrane neutrokin-.alpha.

DATE-ISSUED: October 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Guo-Liang	Berkeley	CA		
Ebner; Reinhard	Gaithersburg	MD		
Ni; Jian	Rockville	MD		
Rosen; Craig A.	Laytonsville	MD		

US-CL-CURRENT: 435/326; 435/328, 435/331, 435/4, 530/387.1, 530/387.3, 530/387.9, 530/388.1, 530/388.15

ABSTRACT:

The present invention relates to a novel Neutrokin- α , and a splice variant thereof designated Neutrokin- α SV, polynucleotides and polypeptides which are members of the TNF family. In particular, isolated nucleic acid molecules are provided encoding the human Neutrokin- α and/or Neutrokin- α SV polypeptides, including soluble forms of the extracellular domain. Neutrokin- α and/or Neutrokin- α SV polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of Neutrokin- α and/or Neutrokin- α SV activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating immune system-related disorders.

32 Claims, 34 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 3. Document ID: US 6623941 B1

L4: Entry 3 of 33

File: USPT

Sep 23, 2003

US-PAT-NO: 6623941

DOCUMENT-IDENTIFIER: US 6623941 B1

TITLE: Nucleic acids encoding human tumor necrosis factor TR20

DATE-ISSUED: September 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ruben; Steven M.	Olney	MD		
Baker; Kevin P.	Darnestown	MD		
Ni; Jian	Germantown	MD		

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1, 435/325, 530/350, 536/23.5

ABSTRACT:

The present invention relates to TR20 polypeptides. In particular, isolated nucleic acid molecules are provided encoding human TR20 protein. TR20 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of TR20 activity.

76 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw D
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☐ 4. Document ID: US 6586450 B2

L4: Entry 4 of 33

File: USPT

Jul 1, 2003

US-PAT-NO: 6586450

DOCUMENT-IDENTIFIER: US 6586450 B2

TITLE: Phenethyl-thiourea compounds and use

DATE-ISSUED: July 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckun; Fatih M.	White Bear Lake	MN		
Ventatachalam; Taracad K.	St. Anthony	MN		

US-CL-CURRENT: 514/352; 546/305

ABSTRACT:

Novel phenylethyl-thiourea (PHET) compounds as inhibitors of reverse transcriptase and effective agents for the treatment of HIV infection, including mutant, drug-sensitive, drug-resistant, and multi-drug resistant strains of HIV.

6 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. De
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☐ 5. Document ID: US 6562579 B1

L4: Entry 5 of 33

File: USPT

May 13, 2003

US-PAT-NO: 6562579

DOCUMENT-IDENTIFIER: US 6562579 B1

TITLE: Diagnostic methods using antibodies to Neutrokin- α

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Guo-Liang	Berkeley	CA		
Ebner; Reinhard	Gaithersburg	MD		
Ni; Jian	Rockville	MD		
Rosen; Craig A.	Laytonsville	MD		

US-CL-CURRENT: 435/7.1; 435/7.2, 530/350, 530/387.9, 530/388.1, 530/388.23,

530/389.1, 530/391.3

ABSTRACT:

The present invention relates to a novel Neutrokin- α , and a splice variant thereof designated Neutrokin- α SV, polynucleotides and polypeptides which are members of the TNF family. In particular, isolated nucleic acid molecules are provided encoding the human Neutrokin- α and/or Neutrokin- α SV polypeptides, including soluble forms of the extracellular domain. Neutrokin- α and/or Neutrokin- α SV polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of Neutrokin- α and/or Neutrokin- α SV activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating immune system-related disorders.

28 Claims, 33 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. De
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☐ 6. Document ID: US 6551799 B2

L4: Entry 6 of 33

File: USPT

Apr 22, 2003

US-PAT-NO: 6551799

DOCUMENT-IDENTIFIER: US 6551799 B2

TITLE: Interleukin-22 polypeptides, nucleic acids encoding the same and methods for the treatment of pancreatic disorders

DATE-ISSUED: April 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gurney; Austin L.	Belmont	CA		
Aggarwal; Sudeepa	San Bruno	CA		
Xie; Ming-Hong	San Francisco	CA		
Maruoka; Ellen M.	San Francisco	CA		
Foster; Jessica S.	Hayward	CA		
Goddard; Audrey	San Francisco	CA		
Wood; William I.	Hillsborough	CA		

US-CL-CURRENT: 435/69.52; 435/320.1, 435/325, 530/351

ABSTRACT:

The present invention is directed to interleukin-22 polypeptides and nucleic acid molecules encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide molecules comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present

invention and to methods for producing the polypeptides of the present invention.

6 Claims, 11 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 11

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMIC	Draw. De
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☐ 7. Document ID: US 6534485 B1

L4: Entry 7 of 33

File: USPT

Mar 18, 2003

US-PAT-NO: 6534485
DOCUMENT-IDENTIFIER: US 6534485 B1

TITLE: Bone marrow-specific protein

DATE-ISSUED: March 18, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Duan; D. Roxanne	Bethesda	MD		
Ruben; Steven M.	Olney	MD		

US-CL-CURRENT: 514/44; 424/184.1, 424/185.1, 435/320.1, 435/325, 435/455, 530/350

ABSTRACT:

The present invention relates to a novel human protein called Bone Marrow-Specific Protein (BMSP), and isolated polynucleotides encoding this protein. Also provided are vectors, host cells, antibodies, and recombinant methods for producing this human protein. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, and/or preventing disorders related to this novel human protein.

77 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMIC	Draw. De
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☐ 8. Document ID: US 6486301 B1

L4: Entry 8 of 33

File: USPT

Nov 26, 2002

US-PAT-NO: 6486301
DOCUMENT-IDENTIFIER: US 6486301 B1

TITLE: Interleukin-20

DATE-ISSUED: November 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ebner; Reinhard	Gaithersburg	MD		
Murphy; Marianne	Richmond			GB
Ruben; Steven M.	Olney	MD		
Hu; Jing-Shan	Sunnyvale	CA		
Duan; D. Roxanne	Bethesda	MD		
Florence; Kimberly A.	Rockville	MD		
Rosen; Craig A.	Laytonsville	MD		

US-CL-CURRENT: 530/351; 424/85.1

ABSTRACT:

The present invention relates to a novel IL-20 protein which is a member of the cytokine polypeptide family. In particular, isolated nucleic acid molecules are provided encoding the human IL-20 protein. IL-20 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of IL-20 activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating immune system-related disorders.

18 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 9. Document ID: US 6469034 B1

L4: Entry 9 of 33

File: USPT

Oct 22, 2002

US-PAT-NO: 6469034

DOCUMENT-IDENTIFIER: US 6469034 B1

TITLE: Cyclohexenyl-ethyl-thiourea compounds for inhibiting HIV reverse transcriptase

DATE-ISSUED: October 22, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckun; Fatih M.	White Bear Lake	MN		
Ventatachalam; Taracad K.	St. Anthony	MN		

US-CL-CURRENT: 514/352; 514/349, 514/358, 514/580

ABSTRACT:

Novel CycloHexenyl-Ethyl-Thiourea (CHET) compounds as inhibitors of reverse transcriptase and effective agents for the treatment of HIV infection, including mutant, drug-sensitive, drug-resistant, and multi-drug resistant strains of HIV.

2 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw D
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☐ 10. Document ID: US 6407246 B2

L4: Entry 10 of 33

File: USPT

Jun 18, 2002

US-PAT-NO: 6407246

DOCUMENT-IDENTIFIER: US 6407246 B2

TITLE: Phenethyl-thiourea compounds and use

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckun; Fatih M.	White Bear Lake	MN		
Ventatachalam; Taracad K.	St. Anthony	MN		

US-CL-CURRENT: 546/305

ABSTRACT:

Novel phenylethyl-thiourea (PHET) compounds as inhibitors of reverse transcriptase and effective agents for the treatment of HIV infection, including mutant, drug-sensitive, drug-resistant, and multi-drug resistant strains of HIV.

3 Claims, 2 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw D
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☐ 11. Document ID: US 6406867 B1

L4: Entry 11 of 33

File: USPT

Jun 18, 2002

US-PAT-NO: 6406867

DOCUMENT-IDENTIFIER: US 6406867 B1

**** See image for Certificate of Correction ****

TITLE: Antibody to human endokine alpha and methods of use

DATE-ISSUED: June 18, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Guo-Liang	Berkeley	CA		
Ni; Jian	Rockville	MD		
Rosen; Craig A.	Laytonsville	MD		

US-CL-CURRENT: 435/7.2; 424/130.1, 424/139.1, 424/141.1, 424/142.1, 424/158.1,
530/387.1, 530/387.9, 530/388.1, 530/388.15, 530/388.24, 530/389.2

ABSTRACT:

The present invention concerns a novel member of the tumor necrosis factor (TNF) family of cytokines. In particular, isolated nucleic acid molecules are provided encoding the endokine alpha protein. Endokine alpha polypeptides are also provided, as are vectors, host cells and recombinant methods for producing the same. Antibodies and antibody fragments which specifically bind the polypeptides of the invention are also provided, as well as methods for detecting the polypeptides of the invention using said antibodies and antibody fragments. Also provided are diagnostic and therapeutic methods concerning TNF family-related disorders.

56 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw De
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☐ 12. Document ID: US 6403770 B1

L4: Entry 12 of 33

File: USPT

Jun 11, 2002

US-PAT-NO: 6403770

DOCUMENT-IDENTIFIER: US 6403770 B1

**** See image for Certificate of Correction ****

TITLE: Antibodies to neutrokin-alpha

DATE-ISSUED: June 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yu; Guo-Liang	Berkeley	CA		
Ebner; Reinhard	Gaithersburg	MD		
Ni; Jian	Rockville	MD		
Rosen; Craig A.	Laytonsville	MD		

US-CL-CURRENT: 530/387.3; 435/69.5, 435/7.1, 530/300, 530/324, 530/351, 530/388.1,
530/388.23

ABSTRACT:

The present invention relates to a novel Neutrokin- α , and a splice variant thereof designated Neutrokin- α SV, polynucleotides and polypeptides which are members of the TNF family. In particular, isolated nucleic acid molecules are provided encoding the human Neutrokin- α and/or Neutrokin- α SV polypeptides, including soluble forms of the extracellular domain. Neutrokin- α and/or Neutrokin- α SV polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of Neutrokin- α and/or Neutrokin- α SV activity. Also provided are diagnostic methods for detecting immune system-related disorders and therapeutic methods for treating immune system-related disorders.

292 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	COMM	Draw D
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☐ 13. Document ID: US 6395538 B1

L4: Entry 13 of 33

File: USPT

May 28, 2002

US-PAT-NO: 6395538

DOCUMENT-IDENTIFIER: US 6395538 B1

TITLE: Method and system for providing real-time, in situ biomanufacturing process monitoring and control in response to IR spectroscopy

DATE-ISSUED: May 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Naughton; Raymond A.	West River	MD		
Rohrer; Thomas R.	Hagerstown	MD		
Gentz; Reiner L.	Rockville	MD		

US-CL-CURRENT: 435/288.7; 435/173.1, 435/173.7

ABSTRACT:

A method and system for providing real-time, biomanufacturing process monitoring and control in response to infra-red (IR) spectroscopic fingerprinting of a biomolecule. IR spectroscopy is used to fingerprint an active biomolecule in situ in a biomanufacturing process. In one embodiment, Fourier Transform Infra-red spectroscopy (FTIR) is used to determine whether an active or aged biomolecule is present in stages of a biomanufacturing process. In one preferred example, the biomanufacturing process manufactures a biomaterial in bulk. The biomanufacturing process has four stages: bioproduction, recovery, purification, and bulk storage. FTIR spectroscopy is used to monitor the optimization of each process step by providing feedback controls, and to fingerprint in real-time, in situ whether active biomolecules are present in each stage.

27 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KOMC	Draw. De
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☐ 14. Document ID: US 6362228 B1

L4: Entry 14 of 33

File: USPT

Mar 26, 2002

US-PAT-NO: 6362228

DOCUMENT-IDENTIFIER: US 6362228 B1

TITLE: Phenethyl-thiourea compounds and use

DATE-ISSUED: March 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckun; Faith M.	White Bear Lake	MN		
Ventatachalam; Taracad K.	St. Anthony	MN		

US-CL-CURRENT: 514/585; 564/26

ABSTRACT:

Novel phenylethyl-thiourea (PHET) compounds as inhibitors of reverse transcriptase and effective agents for the treatment of HIV infection, including mutant, drug-sensitive, drug-resistant, and multi-drug resistant strains of HIV.

10 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KOMC	Draw. De
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☐ 15. Document ID: US 6359117 B1

L4: Entry 15 of 33

File: USPT

Mar 19, 2002

US-PAT-NO: 6359117

DOCUMENT-IDENTIFIER: US 6359117 B1

**** See image for Certificate of Correction ****

TITLE: Isolated nucleic acid molecules which encode T cell inducible factors (TIFs), the proteins encoded, and uses therefor

DATE-ISSUED: March 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dumoutier; Laure	Brussels			BE

Louhed; Jamila	Brussels	BE
Renauld; Jean-Christophe	Brussels	BE

US-CL-CURRENT: 530/351; 530/350

ABSTRACT:

The invention involves isolation of nucleic acid molecules, the expression of which are upregulated by interleukin-9. The amino acid sequences of the proteins which correspond to the nucleic acid molecules show some structural features of cytokines. In addition to the nucleic acid molecules and the proteins, various uses of the molecules are disclosed. The molecules are referred to as T cell inducible factors.

3 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 16. Document ID: US 6274710 B1

L4: Entry 16 of 33

File: USPT

Aug 14, 2001

US-PAT-NO: 6274710

DOCUMENT-IDENTIFIER: US 6274710 B1

**** See image for Certificate of Correction ****

TITLE: Antibodies which specifically bind T Cell inducible factors (TIFs)

DATE-ISSUED: August 14, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dumoutier; Laure	Brussels			BE
Louhed; Jamila	Brussels			BE
Renauld; Jean-Christophe	Brussels			BE

US-CL-CURRENT: 530/387.9; 530/387.1, 530/387.3, 530/388.1, 530/388.23, 530/389.2

ABSTRACT:

The invention involves isolation of nucleic acid molecules, the expression of which are upregulated by interleukin-9. The amino acid sequences of the proteins which correspond to the nucleic acid molecules show some structural features of cytokines. In addition to the nucleic acid molecules and the proteins, various uses of the molecules are disclosed. The molecules are referred to as T cell induceable factors.

8 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 17. Document ID: US 6207688 B1

L4: Entry 17 of 33

File: USPT

Mar 27, 2001

US-PAT-NO: 6207688

DOCUMENT-IDENTIFIER: US 6207688 B1

TITLE: Phenethyl-thiourea compounds and use

DATE-ISSUED: March 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckum; Fatih M.	White Bear Lake	MN		
Ventatachalam; Taracad K.	St. Anthony	MN		

US-CL-CURRENT: 514/352; 546/305

ABSTRACT:

Novel phenylethyl-thiourea (PHET) compounds as inhibitors of reverse transcriptase and effective agents for the treatment of HIV infection, including mutant, drug-sensitive, drug-resistant, and multi-drug resistant strains of HIV.

13 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw. De
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☐ 18. Document ID: US 6124324 A

L4: Entry 18 of 33

File: USPT

Sep 26, 2000

US-PAT-NO: 6124324

DOCUMENT-IDENTIFIER: US 6124324 A

TITLE: Thiophene-ethyl thiourea compounds and use

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uckun; Fatih M.	White Bear Lake	MN		
Ventatachalam; Taracad K.	St. Anthony	MN		

US-CL-CURRENT: [514/336](#); [514/438](#), [546/280.4](#), [549/65](#), [549/68](#), [549/77](#)

ABSTRACT:

Novel thiophene-ethyl-thiourea (TET) compounds as inhibitors of reverse transcriptase and effective agents for the treatment of HIV infection, including mutant, drug-sensitive, drug-resistant, and multi-drug resistant strains of HIV.

16 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw De
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☐ 19. Document ID: US 5998411 A

L4: Entry 19 of 33

File: USPT

Dec 7, 1999

US-PAT-NO: 5998411

DOCUMENT-IDENTIFIER: US 5998411 A

**** See image for Certificate of Correction ****

TITLE: Heterocyclic nonnucleoside inhibitors of reverse transcriptase

DATE-ISSUED: December 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vig; Rakesh	Little Canada	MN		
Mao; Chen	St. Paul	MN		
Uckun; Fatih A.	White Bear Lake	MN		

US-CL-CURRENT: [514/235.5](#); [424/130.1](#), [424/85.1](#), [514/253.01](#), [514/318](#), [544/124](#), [544/360](#), [546/208](#)

ABSTRACT:

Novel compounds that are potent inhibitors of HIV reverse transcriptase (RT) are described in the invention. These novel compounds also inhibit replication of a retrovirus, such as human immunodeficiency virus-1 (HIV-1). The novel compounds of the invention include analogs and derivatives of phenethylthiazolylthiourea (PETT), of dihydroalkoxybenzylloxypyrimidine (DABO), and of 1-[(2-hydroxyethoxy)methyl]-6-(phenylthio)thymine (HEPT).

The invention additionally provides a composite HIV reverse-transcriptase (RT) nonnucleoside inhibitor (NNI) binding pocket constructed from a composite of multiple NNI-RT complexes. The composite RT-NNI binding pocket provides a unique and useful tool for designing and identifying novel, potent inhibitors of reverse transcriptase.

26 Claims, 14 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. De
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☐ 20. Document ID: US 5256560 A

L4: Entry 20 of 33

File: USPT

Oct 26, 1993

US-PAT-NO: 5256560

DOCUMENT-IDENTIFIER: US 5256560 A

TITLE: Primitive cell colony stimulating factors and lymphohematopoietic progenitor cells

DATE-ISSUED: October 26, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lawman; Michael J. P.	Gainsville	FL		
Ohmann; Helle B.	Saskatchewan			CA
Attah-Poku; Samuel K.	Saskatchewan			CA
Heise-Qualtiere; Janette	Saskatchewan			CA

US-CL-CURRENT: 435/325; 435/372

ABSTRACT:

The invention derives from the discovery of cells, non-adherent (NA) cells, which have properties indicating that they may be pluripotent lymphohematopoietic progenitor cells. These cells, and the stromal cells derived from bone marrow cultures, produce factors which stimulate the growth of primitive cell colonies, as reflected in their stimulation of the growth of colonies of NA cells. These primitive cell colony stimulating factors (PC-CSFs) may be useful in the treatment of disorders which can be alleviated by the proliferation of desired cells. In addition, the NA cells and/or PC-CSF(s) may provide an alternative and/or supplementary method to bone marrow transplantation to alleviate hematopoietic disorders.

8 Claims, 9 Drawing figures

Exemplary Claim Number: 1,2

Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. De
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Terms	Documents
L3 or L1	33

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[Generate OACS](#)

Search Results - Record(s) 21 through 33 of 33 returned.

☐ 21. Document ID: US 20040002586 A1

Using default format because multiple data bases are involved.

L4: Entry 21 of 33

File: DWPI

Jan 1, 2004

DERWENT-ACC-NO: 2004-061676

DERWENT-WEEK: 200406

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TITLE: Identifying a mutant mammalian interleukin-22 (IL-22) with modified stability to dimerize and/or bind an IL-22 receptor comprises constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates given

INVENTOR: COLAU, D; DUMOUTIER, L ; NAGEM, R A P ; POLIKARPOV, I ; RENAULD, J C

PRIORITY-DATA: 2002US-0238965 (September 10, 2002), 2001US-317937P (September 10, 2001), 2001US-333150P (November 27, 2001), 2002US-0050552 (January 18, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 20040002586 A1</u>	January 1, 2004		104	C07K014/54

INT-CL (IPC): C07 K 14/54; G06 G 7/48; G06 G 7/58

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMC	Draw De
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☐ 22. Document ID: US 20020187512 A1, WO 2003023012 A2

L4: Entry 22 of 33

File: DWPI

Dec 12, 2002

DERWENT-ACC-NO: 2003-370763

DERWENT-WEEK: 200406

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TITLE: New mutant interleukin-22 (IL-22) with mutation(s) at an IL-22 dimerization interface, useful as an antagonist for treating and inhibiting IL-22 mediated processes or IL-22 related disorders, e.g. asthma, inflammation or cancer

INVENTOR: COLAU, D; DUMOUTIER, L ; NAGEM, R A P ; POLIKARPOV, I ; RENAULD, J C

PRIORITY-DATA: 2002US-0050552 (January 18, 2002), 2001US-317937P (September 10, 2001), 2001US-333150P (November 27, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 20020187512 A1</u>	December 12, 2002		102	G01N033/53
<u>WO 2003023012 A2</u>	March 20, 2003	E	000	C12N000/00

INT-CL (IPC): C12 N 0/00; C12 P 21/04; G01 N 33/48; G01 N 33/50; G01 N 33/53; G06 F 19/00

ABSTRACTED-PUB-NO: US20020187512A

BASIC-ABSTRACT:

NOVELTY - A mutant interleukin-22 (IL-22), which comprises at least one amino acid substitution in Region 1 or Region 2, or which comprises at least one mutation at an IL-22 dimerization interface, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for identifying a mutant mammalian IL-22 with a modified ability to dimerize and/or bind an IL-22 receptor, comprising:

- (a) constructing a three-dimensional structure of hIL-22 defined by the atomic coordinates fully defined in the specification;
- (b) employing the three-dimensional structure and modeling methods to identify an amino acid involved in stabilizing an IL-22 dimer, and/or to identify an amino acid involved in receptor binding;
- (c) producing a mammalian IL-22 having a mutation at an amino acid identified in (b); and
- (d) assaying the mutant IL-22 to determine the ability of the mutant to dimerize as compared to an IL-22 control, where a difference in dimerization between the mutant and the control is indicative of a modified ability to dimerize, and/or assaying the mutant IL-22 to determine the ability of the mutant to bind to the IL-22 receptor as compared to an IL-22 control, where a difference in binding between the mutant and the IL-22 control is indicative of a modified ability to bind the IL-22 receptor.

ACTIVITY - Antiasthmatic; Antiinflammatory; Cytostatic.

No biological data given.

MECHANISM OF ACTION - Interleukin-22 Agonist/Antagonist.

USE - The mutant IL-22 is useful as a therapeutic agent, particularly as agonists or antagonists. In particular, the mutant IL-22 is useful for treating and inhibiting IL-22 mediated processes or IL-22 related disorders, e.g. asthma, inflammation or cancer. The three-dimensional crystal structure of IL-22 is useful for identifying specific amino acids involved in binding the IL-22 receptor, and in rational drug design for producing therapeutic molecules, mimetics, IL-22 mutants, or ligands of the IL-22 receptor.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	NOOC	Draw. Loc.
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☐ 23. Document ID: WO 200229098 A2, AU 200192125 A

L4: Entry 23 of 33

File: DWPI

Apr 11, 2002

DERWENT-ACC-NO: 2002-426117
DERWENT-WEEK: 200254
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TITLE: Predicting outcome of viral infection in a subject by screening for one or more polymorphic variants of interleukin 10 receptor B gene or interferon-gamma receptor chain-B gene in genome of the subject

INVENTOR: FRODSHAM, A; HILL, A ; THOMAS, H ; THURSZ, M ; ZHANG, L

PRIORITY-DATA: 2000GB-0024442 (October 5, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 200229098 A2</u>	April 11, 2002	E	044	C12Q001/68
<u>AU 200192125 A</u>	April 15, 2002		000	C12Q001/68

INT-CL (IPC): A61 K 38/20; A61 K 38/21; C12 Q 1/68; G01 N 33/50; G01 N 33/68

ABSTRACTED-PUB-NO: WO 200229098A

BASIC-ABSTRACT:

NOVELTY - Predicting (M) outcome or the likely course of viral infection and resultant disease, and response to therapy for human subject infected with virus, comprising screening for presence or absence in genome of subject one or more polymorphic variant (PV) of interleukin 10 receptor B gene (IL10RB) (I) or interferon- gamma receptor chain-B (INFR2) (II) gene, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) identifying (M1) a compound having potential pharmacological activity in the prevention or modulation of infection with hepatitis virus or human immunodeficiency virus (HIV) involves providing a cell expressing the IL-10 receptor or IFN gamma receptor and measuring an indicator or IL-10/IL-10 (III) or IFN gamma /IFN gamma (IV) receptor signaling in the presence or absence of a test compound respectively, where increase in signaling of (III) or (IV) in the presence of the test compound is an indication that the test compound has potential pharmacological activity;

(2) treating (M2) a persistent hepatitis virus infection by administering to a patient a therapeutically effective amount of a medicament comprising IL-10 or IL-22; and

(3) use of IL-10 or IL-22 for the manufacture of medicament for the treatment of a persistent hepatitis virus infection.

ACTIVITY - Virucide; Hepatotrophic; Antiinflammatory.

No biological data is given.

MECHANISM OF ACTION - Inhibitor of tumor necrosis factor alpha ; Regulator of IL-10 receptor pathway.

USE - (M) is useful for predicting the outcome of viral infection, the likely course of a viral infection and resultant disease response to therapy for human subject infected with a virus such as hepatitis B virus, hepatitis C virus and HIV. (M) is useful in predicting the need for or utility of vaccines designed to prevent or modulate hepatitis B or hepatitis C virus. (M) is also useful in predicting

response to therapeutic interferon or interferon derivatives in persistent hepatitis virus infection. (M) is useful for predicting the likelihood that a non-infected subject will develop a persistent infection following exposure to virus and also predicting survival time following infection. (M1) is useful for identifying a compound having a potential pharmacological activity in the prevention or modulation of infection with hepatitis virus or HIV. (M2) is useful for treating persistent and chronic hepatitis virus infection (all claimed).

ADVANTAGE - (M) predicts the individual who are at risk of developing persistent infection because of their genetic make-up. This allows early intervention with treatment regimes aimed at either preventing infection or preventing the establishment of persistent infection in infected individual.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	EMC	Draw De
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☐ 24. Document ID: US 20010023070 A1

L4: Entry 24 of 33

File: DWPI

Sep 20, 2001

DERWENT-ACC-NO: 2001-638470

DERWENT-WEEK: 200404

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TITLE: New interleukin-21 and interleukin-22 polynucleotides and polypeptides, useful for treating, preventing or diagnosing e.g. disorders of hematopoietic cells, autoimmune disorders, or hyperproliferative diseases

INVENTOR: EBNER, R; RUBEN, S M

PRIORITY-DATA: 2000US-0731816 (December 8, 2000), 1998US-087340P (May 29, 1998), 1999US-131965P (April 30, 1999), 1999US-0320713 (May 27, 1999), 1999WO-US11644 (May 27, 1999), 1999US-169837P (December 9, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>US 20010023070 A1</u>	September 20, 2001		087	C12P021/02

INT-CL (IPC): C07 H 21/04; C12 N 5/06; C12 P 21/02; C12 Q 1/68; G01 N 33/53

ABSTRACTED-PUB-NO: US20010023070A

BASIC-ABSTRACT:

NOVELTY - An isolated nucleic acid comprising a polynucleotide having at least 95 % identity to a 705 (S1), 1067 (S2) or 1642 (S3) base pair sequence, fully defined in the specification, is new. The nucleic acid encodes an interleukin-21 (IL-21) or interleukin-22 (IL-22).

DETAILED DESCRIPTION - An isolated nucleic acid comprising a polynucleotide having at least 95 % identity to a 705 (S1), 1067 (S2) or 1642 (S3) base pair sequence, fully defined in the specification, is new. The nucleic acid encodes an interleukin-21 (IL-21) or interleukin-22 (IL-22). The isolated nucleic acid comprises a sequence that is at least 95 % identical to a polynucleotide selected from the following:

(a) a fragment of S1 or of a cDNA included in ATCC Deposit number 209666, a fragment of S2, a fragment of S3 or of a cDNA included in ATCC Deposit number

209665;

(b) a polynucleotide encoding an 87 residue amino acid sequence, (AA1), fully defined in the specification, its fragment, a conserved polypeptide domain I, II, III or IV, an epitope of AA1, or a cDNA sequence included in ATCC Deposit number 209666;

(c) a polynucleotide fragment of S2, or a polynucleotide encoding conserved polypeptide domain I, II, III, IV, V, VI or VII of S2, an epitope of S2, or a polypeptide of S2 having biological activity;

(d) a polynucleotide encoding a 160 residue amino acid sequence (AA2), fully defined in the specification, its fragment, a conserved polypeptide domain I, II, III or IV of AA2, or an epitope of AA2, or the cDNA sequence included in ATCC deposit number 209665;

(e) a variant or an allelic variant of S1, S2 or S3;

(f) a polynucleotide which encodes a species homologue of AA1, S2 or AA2; or

(g) a polynucleotide capable of hybridizing to (a)-(f) under stringent conditions, or a complement of (a)-(f).

INDEPENDENT CLAIMS are also included for the following:

(1) a recombinant vector comprising the isolated nucleic acid;

(2) making a recombinant host cell comprising the new nucleic acid;

(3) recombinant host cells produced from (2);

(4) an isolated polypeptide comprising an amino acid sequence at least 95 % identical to:

(a) a fragment, domain or epitope of AA1 or AA2, or the encoded sequence included in ATCC deposit number 209666;

(b) a full length or mature form of AA1 or AA2;

(c) a variant, allelic variant or species homologue of AA1, AA2 or AA3; or

(d) a fragment, domain, epitope, mature form or full length of a secreted form of a 197 residue amino acid sequence (AA3), fully defined in the specification;

(5) an isolated antibody that binds specifically to the polypeptide;

(6) recombinant host cells that express the isolated polypeptide;

(7) making an isolated polypeptide by culturing the recombinant host for the expression of the polypeptide and recovering the polypeptide;

(8) a polypeptide produced from (7);

(9) preventing, treating or ameliorating a medical condition by administering the polypeptide;

(10) diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of a secreted protein by determining the presence of a mutation in the polynucleotide, or the presence or amount of expression of the polypeptide in a biological sample;

(11) identifying binding partner to the polypeptide by contacting the polypeptide with a binding partner and determining if the binding partner effects an activity of the polypeptide;

(12) identifying an activity in a biological assay by expressing S1, S2 or S3 in a cell, isolating the supernatant, detecting an activity in a biological assay, and identifying the protein in the supernatant having the activity; and

(13) products produced from (12).

ACTIVITY - Immunosuppressive; cytostatic; thrombolytic; antiinflammatory; antibacterial.

No biological data is given.

MECHANISM OF ACTION - Gene therapy.

USE - Interleukin (IL)-21 and IL-22 polynucleotides can be used in linkage analysis as a marker for those specific chromosome, in chromosome mapping, to control gene expression through triple helix formation or antisense DNA or RNA, in gene therapy, in identifying individuals from minute biological samples, as an alternative to restriction fragment length polymorphism (RFLP) analysis, as polymorphic markers for forensic purposes, as molecular weight markers, or as diagnostic probes. IL-21 and IL-22 polypeptides can be used to treat, prevent or diagnose diseases of the immune system by activating or inhibiting the proliferation, differentiation or mobilization of immune cells, disorders of hematopoietic cells (e.g. ataxia, human immunodeficiency virus (HIV) infection, anemia, thrombocytopenia), autoimmune disorders (e.g. Grave's disease, systemic lupus erythematosus, ophthalmia), graft versus host disease, inflammation, hyperproliferative disorders, or infectious diseases. The polypeptides are useful for generating antibodies, which can be used to treat, inhibit or prevent diseases or conditions associated with aberrant expression and/or activity of IL-21 or IL-22.

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	FIGS	Draw. Ds
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☐ 25. Document ID: WO 9961617 A1, AU 9942087 A, EP 1082433 A1, MX 2000011729 A1, JP 2002516103 W, US 20030003545 A1, US 20030092133 A1

L4: Entry 25 of 33

File: DWPI

Dec 2, 1999

DERWENT-ACC-NO: 2000-072622

DERWENT-WEEK: 200404

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TITLE: Novel polynucleotides used to develop products for treating e.g. immune disorders, blood disorders, autoimmune disorders, allergies, inflammation, hyperproliferative disorders or infections

INVENTOR: EBNER, R; RUBEN, S M

PRIORITY-DATA: 1999US-131965P (April 30, 1999), 1998US-087340P (May 29, 1998), 1998US-099805P (September 10, 1998), 1999US-0320713 (May 27, 1999), 2002US-0153770 (May 24, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9961617 A1</u>	December 2, 1999	E	169	C12N015/24
<u>AU 9942087 A</u>	December 13, 1999		000	
<u>EP 1082433 A1</u>	March 14, 2001	E	000	C12N015/24
<u>MX 2000011729 A1</u>	June 1, 2001		000	A61K038/20
<u>JP 2002516103 W</u>	June 4, 2002		233	C12N015/09
<u>US 20030003545 A1</u>	January 2, 2003		000	C12Q001/68
<u>US 20030092133 A1</u>	May 15, 2003		000	C07K014/54

INT-CL (IPC): A61 K 38/00; A61 K 38/20; A61 K 39/395; A61 K 45/00; A61 P 7/04; A61 P 9/00; A61 P 15/08; A61 P 25/00; A61 P 35/04; A61 P 43/00; C07 H 21/04; C07 K 1/00; C07 K 14/00; C07 K 14/54; C07 K 16/24; C07 K 17/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 5/00; C12 N 5/02; C12 N 5/06; C12 N 5/10; C12 N 15/00; C12 N 15/09; C12 N 15/24; C12 N 15/63; C12 N 15/70; C12 N 15/74; C12 P 21/02; C12 P 21/04; C12 Q 1/68; G01 N 33/68

ABSTRACTED-PUB-NO: WO 9961617A

BASIC-ABSTRACT:

NOVELTY - New isolated human interleukin-21 (IL-21) and IL-22 polynucleotides (PNs) and polypeptides are disclosed.

DETAILED DESCRIPTION - A novel isolated nucleic acid molecule (NAM) comprises a PN having a nucleotide sequence (NS) at least 95% identical to a sequence selected from:

- (1) a PN fragment having a fully defined 705, 1067 or 1642 base sequence, given in the specification or a PN fragment of the cDNA sequence in ATCC No. 209666 or 209655;
- (2) a PN encoding a polypeptide fragment having a fully defined 87, 160 or 197 residue amino acid sequence given in the specification, or the cDNA sequence in ATCC No. 209666 or 209655;
- (3) a PN encoding conserved polypeptide domain (I), (II), (III), or (IV) of sequence (II), (III) or (IV) or the cDNA sequence in ATCC No. 209666 or 209655;
- (4) a PN encoding a polypeptide epitope of sequence (II), (III) or (IV) or the cDNA sequence in ATCC No. 209666 or 209655;
- (5) a PN encoding a polypeptide of sequence (II), (III) or (IV) or the cDNA sequence in ATCC No. 209666 or 209655 having biological activity;
- (6) a PN which is a variant or an allelic variant of sequence (II), (III) or (IV);
- (7) a PN which encodes a species homolog of the polypeptide whose amino acid sequence is shown in sequence (II), (III) or (IV);
- (8) a PN capable of hybridized under stringent conditions to any of the PNs as in (1)-(7), where the PN does not hybridize under stringent conditions to a NAM having a NS of only A residues or of only T residues; and
- (9) a PN which is complementary to any of (1)-(8).

INDEPENDENT CLAIMS are also included for the following:

- (1) a recombinant vector comprising an isolated NAM as in (1);

(2) a method of making a recombinant host cell comprising an isolated NAM as in the novelty, (1) or (2);

(3) a recombinant host cell produced by a method as in (2);

(4) an isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from:

(a) a polypeptide fragment of sequence (II) or the encoded sequence included in ATCC No. 209666, optionally having biological activity;

(b) a polypeptide domain or epitope of sequence (II) or the encoded sequence included in ATCC No. 209666;

(c) a mature form of a secreted protein or a full length secreted protein; a variant, allelic variant, or species homolog of sequence (II);

(5) an isolated antibody that binds specifically to an isolated polypeptide as in (4);

(6) a recombinant host cell that expresses an isolated polypeptide as above;

(7) a gene corresponding to a cDNA sequence of sequence (II), (III) or (IV).

ACTIVITY - Immunestimulatory; anticoagulant; immunosuppressant; antiasthmatic; antiinflammatory; cytostatic; antiviral; antibacterial; fungicide; vulnery.

MECHANISM OF ACTION - The IL-21 and IL-22 proteins modulate IL-6 secretion from NIH-3T3 cells. IL-21 and IL-22 proteins modulate immune system cell proliferation and differentiation in a dose-dependent manner.

USE - The polypeptides can be used for preventing, treating or ameliorating a medical condition (claimed). IL-21 and IL-22 polypeptide or PNs may be useful in treating deficiencies or disorders of the immune system, by activating or inhibiting the proliferation, differentiation, or mobilization (chemotaxis) of immune cells, treating or detecting deficiencies or disorders of hematopoietic cells, to modulate hemostatic or thrombolytic activity, in treating or detecting autoimmune disorders, treating asthma (particularly allergic asthma) or other respiratory problems, to treat and/or prevent organ rejection or graft-versus-host disease (GVHD), to modulate inflammation (e.g. septic shock, sepsis, arthritis, nephritis, cytokine or chemokine induced lung injury, inflammatory bowel disease, Crohn's disease, or resulting from over production of cytokines), to treat or detect hyperproliferative disorders, including neoplasms in the abdomen, bone, breast, digestive system, liver, pancreas, peritoneum, endocrine glands, eye, head and neck, nervous (central and peripheral), lymphatic system, pelvic, skin, soft tissue, spleen, thoracic and urogenital, hypergammaglobulinemia, lymphoproliferative disorders, sarcoidosis, Waldenström's macroglobulinemia), to treat or detect infectious agents, e.g. viruses (e.g. arthritis, bronchiolitis, encephalitis, eye infections, chronic fatigue syndrome, hepatitis, meningitis, AIDS, pneumonia, chickenpox, measles, mumps, parainfluenza, rabies, the common cold, polio, leukemia, rubella, sexually transmitted diseases, or skin diseases) bacterial or fungal agents (e.g. bacteremia, endocarditis, eye infections, gingivitis, opportunistic infections, respiratory tract infections, Lyme disease, cat-scratch disease, paratyphoid fever, food poisoning, pneumonia, gonorrhea and sexually transmitted diseases, meningitis, tuberculosis, lupus, gangrene, tetanus, rheumatic fever, urinary tract infections, wound infections), parasitic agents (e.g. scabies, dysentery, liver disease, malaria, toxoplasmosis), to differentiate, proliferate and attract cells, leading to the regeneration of tissues (e.g. repair, replace or protect tissue in wounds, burns, incisions or ulcers, osteoporosis,

osteocarthritis, periodontal disease, liver failure, surgery, cosmetic plastic surgery, reperfusion injury) to proliferate and differentiate nerve cells (e.g. spinal cord disorders, head trauma, cerebrovascular disease and stroke), localized neuropathies and central nervous system diseases (e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome). IL-21 and IL-22 polypeptides or PNS may also increase or decrease the differentiation or proliferation of embryonic stem cells and hematopoietic lineage, may be used to modulate mammalian characteristics such as body height, weight, hair color, eye color, skin, percentage of adipose tissue, pigmentation, size, and shape, to modulate mammalian metabolism affecting catabolism, anabolism, processing, utilization and storage of energy, to change a mammal's mental state or physical state by influencing biorhythms, cardiac rhythms, circadian rhythms, depression (including depressive disorders), tendency for violence, tolerance for pain, reproductive capabilities, hormonal or endocrine levels, appetite, libido, memory, stress, or other cognitive qualities, as a food additive or preservative, such as to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional components. The polypeptides can also be used to identify binding partners. Mutations in the PNs or the presence or amount of expression or activity of the polypeptides can be used for diagnosing a pathological condition or a susceptibility to a pathological condition (claimed).

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	RMC	Draw. De
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☐ 26. Document ID: US 3453753 A

L4: Entry 26 of 33

File: USOC

Jul 8, 1969

US-PAT-NO: 3453753

DOCUMENT-IDENTIFIER: US 3453753 A

TITLE: CONTINUOUS COMPARATOR OF HUMAN RESPONSES FOR TESTS, PRESET COMPARATIVE DATA, AND THE LIKE

DATE-ISSUED: July 8, 1969

INVENTOR-NAME: FARNUM HENRY M

US-CL-CURRENT: 434/350

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	RMC	Draw. De
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☐ 27. Document ID: US 3374236 A

L4: Entry 27 of 33

File: USOC

Mar 19, 1968

US-PAT-NO: 3374236

DOCUMENT-IDENTIFIER: US 3374236 A

TITLE: Quaternary 5-ammoniummethyl-4-amino-2-alkylmercaptoalkylene pyrimidine salts

DATE-ISSUED: March 19, 1968

INVENTOR-NAME: HERBERT MIZZONI RENAT; DE STEVENS GEORGE

US-CL-CURRENT: 544/328, 544/238, 544/295, 544/296, 544/327

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. De
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☐ 28. Document ID: US 3368316 A

L4: Entry 28 of 33

File: USOC

Feb 13, 1968

US-PAT-NO: 3368316

DOCUMENT-IDENTIFIER: US 3368316 A

TITLE: One-piece hollow block with double thickness connecting ears

DATE-ISSUED: February 13, 1968

INVENTOR-NAME: CROWDER WILLIAM E

US-CL-CURRENT: 52/592.1; 446/106, 446/109

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. De
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☐ 29. Document ID: US 3353163 A

L4: Entry 29 of 33

File: USOC

Nov 14, 1967

US-PAT-NO: 3353163

DOCUMENT-IDENTIFIER: US 3353163 A

TITLE: Data processing with typewriter inputoutput device and typewriter carriage controlled program means

DATE-ISSUED: November 14, 1967

INVENTOR-NAME: SOULE JR WINSOR; BINNALL EUGENE P

US-CL-CURRENT: 708/100

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMMC	Draw. De
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☐ 30. Document ID: US 3349972 A

L4: Entry 30 of 33

File: USOC

Oct 31, 1967

US-PAT-NO: 3349972

DOCUMENT-IDENTIFIER: US 3349972 A

TITLE: Dispenser closure

DATE-ISSUED: October 31, 1967

INVENTOR-NAME: WHITEFORD CARLTON L

US-CL-CURRENT: 222/212; 222/490, 222/507

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMNC	Draw. De
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☐ 31. Document ID: US 3246299 A

L4: Entry 31 of 33

File: USOC

Apr 12, 1966

US-PAT-NO: 3246299

DOCUMENT-IDENTIFIER: US 3246299 A

TITLE: Data processing system

DATE-ISSUED: April 12, 1966

INVENTOR-NAME: REX RICE; RAHENKAMP ROBERT A

US-CL-CURRENT: 711/217, 711/100, 712/205

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMNC	Draw. De
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☐ 32. Document ID: US 3120581 A

L4: Entry 32 of 33

File: USOC

Feb 4, 1964

US-PAT-NO: 3120581

DOCUMENT-IDENTIFIER: US 3120581 A

TITLE: Electronic automatic telephone switching system

DATE-ISSUED: February 4, 1964

INVENTOR-NAME: PFLEGER KENNETH W; BROOKS CHESTER E

US-CL-CURRENT: 379/16, 379/271, 379/280

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMNC	Draw. De
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☐ 33. Document ID: US 1623389 A

L4: Entry 33 of 33

File: USOC

Apr 5, 1927

US-PAT-NO: 1623389

DOCUMENT-IDENTIFIER: US 1623389 A

TITLE: Internal-combustion engine

DATE-ISSUED: April 5, 1927

INVENTOR-NAME: BURTNETT EVERETT R

US-CL-CURRENT: 123/51BA

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KMOC	Draw De
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Terms	Documents
L3 or L1	33

Display Format:

[Previous Page](#)[Next Page](#)[Go to Doc#](#)